



LONDON- WEST MIDLANDS ENVIRONMENTAL STATEMENT

Volume 5 | Technical Appendices

CFA7 | Colne Valley

Baseline (SV-002-007)

Sound, noise and vibration

November 2013

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Department for Transport

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1 Introduction

1.1 Structure of the sound, noise and vibration appendices

- 1.1.1 The sound, noise and vibration appendices comprise four sections. The first of these is an introduction to the relevant policy and methodology (Volume 5: Appendix SV-001-000). This relates to the sound, noise and vibration assessment for all community forum areas (CFA).
- 1.1.2 For the Colne Valley area, the other three sections are as follows:
 - baseline sound, noise and vibration (Volume 5: Appendix SV-002-007) (this appendix);
 - construction sound, noise and vibration (Volume 5: Appendix SV-003-007); and
 - operational sound, noise and vibration (Volume 5: Appendix SV-004-007).
- 1.1.3 Maps referred to within this appendix are contained in the Volume 5, Sound, Noise and Vibration Map Book.
- 1.1.4 This appendix includes details of the existing and future baseline sound environment within the area. It provides details of measurements and any other data collection which has been undertaken in order to obtain existing and future baseline sound levels.

1.2 Existing acoustic environment

- 1.2.1 The composition of the sound environment in this area is typical for a mixture of settlements and isolated properties on the periphery of West London. The presence of the M25, A40 and M40 and the relatively busy A412 Denham Way/North Orbital Road leads to significant variation in the sound environment throughout the area.
- 1.2.2 In locations close to busy main roads, the existing acoustic climate is dominated by road traffic, and daytime sound levels are typically 75 to 80dB¹ with levels in community locations further from these roads being considerably lower, as described below.
- 1.2.3 Within Denham Green, traffic on local roads and the North Orbital Road dominates the soundscape, giving rise to daytime sound levels of typically around 60dB for properties located close to the North Orbital road reducing to around 45dB for properties set back into the village. The night time noise levels² within Denham Garden are typically 5 to 10dB lower than the daytime, with the greater reduction between the day and night seen at locations close to the North Orbital Road.
- 1.2.4 The soundscape at Savay Lake, located to the north of Denham Green is shaped by traffic noise from local roads and the more distant North Orbital Road as well as

¹ Quoted dB values at residential areas refer to the free-field 16 hour daytime (07:00 to 23:00) equivalent continuous sound pressure level, $L_{pAeq,16hr}$.

² Night-time sound levels refer to the free-field 8 hour night-time (23:00 to 07:00) equivalent continuous sound pressure level, $L_{pAeq,8hr}$.

activity around the lake, giving rise to daytime noise levels which typically range between 45 - 55dB. The night time noise levels are generally 6dB lower than daytime at this location.

- 1.2.5 Current sound levels on the west side of South Harefield, are dominated during the daytime by activities at the gravel works located by the River Colne. Typical daytime sound levels in the area are around 55dB. At times the sound of aircraft is a regular feature in this area. The night time noise levels within South Harefield are typically 5dB lower than the daytime.
- 1.2.6 At Wyatt's Covert, the current acoustic environment is shaped by road traffic from the North Orbital Road and local roads. The daytime noise levels at this location are typically around 55dB during the day reducing by around 7dB at night.
- 1.2.7 At Denham Grove (De Vere Hotel), the sound levels are shaped by local road traffic and community activity and by the distant North Orbital Road. The daytime sound levels are typically 50dB reducing by around 7dB at night.
- 1.2.8 On Chalfont Lane towards West Hyde, there is a small residential settlement at Sunnyhill Road. Daytime sound levels here are around 60dB and the soundscape is comprised of distant road traffic from the M25 motorway and occasional local vehicles, occasional aircraft over flights and natural sounds. The night time noise levels along Chalfont Lane are typically 9dB lower than the daytime.

2 Scope, assumptions and limitations

2.1 Sound and vibration sensitive receptors

2.1.1 Within the Colne Valley area, 100 assessment locations have been defined to represent all identified sound and vibration sensitive receptors within the spatial scope. The assessment locations are shown on the detailed maps in Map Series SV-03 and SV-04 (Volume 5, Sound, Noise and Vibration Map Book). Within this area, the following types of sound and vibration sensitive receptors have been identified:

- residential areas;
- education facilities;
- community centres and meeting facilities;
- places of worship; and
- healthcare facilities.

2.2 Local engagement

2.2.1 Discussions have been held with representatives of South Bucks District Council, Chiltern District Council and Three Rivers District Council regarding the approach which has been taken to baseline monitoring within this area, the identification of noise and vibration sensitive receptors, the selection of assessment location and baseline sound levels at these assessment locations.

2.2.2 Changes suggested during these meetings have influenced the assessment locations used and the monitoring undertaken and reported in this document.

2.2.3 Representatives of South Bucks District Council, Chiltern District Council and Three Rivers District Council were invited to attend baseline sound measurements in this area and officers from all three councils witnessed the measurement procedures used.

2.2.4 Local engagement through community forum meetings has also provided the opportunity for local groups to suggest appropriate baseline sound monitoring locations. Any suggestions received from these groups have been considered and influenced the monitoring undertaken and reported in this document.

2.3 Existing baseline sound monitoring locations

2.3.1 In some parts of this area, due to limited land access, baseline sound levels have been derived by means of extrapolation of noise levels measured in similar locations in the area.

2.3.2 Maps showing the baseline sound monitoring locations and assessment locations within this area are included in Map Series SV-03 and SV-04 (Volume 5, Sound, Noise and Vibration Map Book).

3 Environmental baseline

3.1 Existing baseline data collection methodology

- 3.1.1 The overall approach to baseline data collection for sound noise and vibration is described in Volume 5: Appendix SV-001-000.
- 3.1.2 Over the Colne Valley area, a large number of baseline sound measurements have been undertaken. These have been classified as follows:
- long-term measurements – unattended measurements of several days duration;
 - medium-term measurements – attended measurements of several hours duration (generally repeated at different times of day); and
 - short-term measurements – attended measurements typically of 30 minutes duration (generally repeated at different times of day).
- 3.1.3 A total of 28 baseline sound level measurements have been undertaken in this CFA.
- 3.1.4 Towards the southern part of Harvil Road, a long-term measurement was undertaken at a farm where baseline sound levels were representative of the surrounding area. A single short-term measurement was also undertaken to supplement this measurement.
- 3.1.5 A short-term measurement was undertaken towards the north end of Harvil Road at a noise sensitive property located in close proximity to the Proposed Scheme.
- 3.1.6 In South Harefield, three long-term and three short-term measurements were undertaken at various locations where the baseline measurements were representative of the noise sensitive receptors in the area.
- 3.1.7 Baseline measurements were undertaken at a number of locations through Denham Green. Three long-term measurements were undertaken at locations where baseline sound levels were representative of those at surrounding properties.
- 3.1.8 North of Denham Green, two long-term measurements were undertaken at noise sensitive properties that will come into close proximity with the Proposed Scheme. Two further short-term measurements were undertaken at other noise sensitive receptors in this area.
- 3.1.9 South of Maple Cross, a long-term measurement was undertaken at two locations where baseline sound levels were representative of those at surrounding properties.
- 3.1.10 Towards the southwest of Maple Cross, a long-term measurement was undertaken in a residential area where baseline noise levels were representative of those at surrounding properties. This was supplemented by a short-term measurement located in an adjacent road.

3.2 Existing baseline sound levels

- 3.2.1 From the measurements described in Section 3.1, baseline sound levels have been ascertained for each assessment location within this area. These levels are presented in terms of the following key sound indicators:
- For the operational sound assessment
 - $L_{pAeq,16hr\ weekday}$ daytime (07:00-23:00) sound pressure level;
 - $L_{pAeq,8hr\ weekday}$ night-time (23:00-07:00) sound pressure level;
 - arithmetic average of $L_{pAFmax,5min}$ night-time sound pressure level; and
 - highest $L_{pAFmax,5min}$ night-time sound pressure level.
 - For the construction sound assessment
 - daytime L_{pAeq} sound pressure level (Monday to Friday 07:00-19:00; Saturday 07:00-13:00);
 - evening/weekend L_{pAeq} sound pressure level (Monday to Friday 19:00-23:00; Saturday 13:00- 23:00; Sunday 07:00 to 23:00); and
 - night-time L_{pAeq} sound pressure level (Monday to Sunday 23:00-07:00).

- 3.2.2 These values are presented in Table 1. The data source coding included within this table details how the baseline sound levels allocated to each assessment location have been derived. This coding is summarised in Table 2 and explained in detail in Volume 5: Appendix SV-001-000.

Appendix SV-002-007

Table 1: Existing baseline sound levels

Assessment location ID	Area represented	Measurement location	Existing baseline sound level (dB)							Data source coding[1]	
			For operational sound assessment				For construction sound assessment				
			Daytime $L_{pAeq,16hr}$	Night-time $L_{pAeq,8hr}$	Arithmetic average of night-time $L_{pAFmax,5min}$	Highest night-time $L_{pAFmax,5min}$	Daytime L_{pAeq}	Evening/weekend L_{pAeq}	Night-time L_{pAeq}		
383893	Tilehouse Lane, Denham	LM5112	54.2	47.7	58.5	74.3	49.8	52.2	41.6	3,A,ii,b	
384372	North Orbital Road, Denham	LM5112	54.2	47.7	58.5	74.3	49.8	52.2	41.6	3,A,ii,b	
384374	Tilehouse Lane, Denham	CS0014	49.5	43.0	50.4	66.2	50.3	52.7	42.1	1,C,iii,b	
384424	Wyatts Covert, Denham	LM5112	50.1	47.7	58.5	74.3	49.8	52.2	41.6	1,C,iii,b	
384540	Queen Mothers Drive, Denham Garden Village	CS3021	48.8	40.2	48.2	62.1	49.2	48.0	39.8	2,A,iii,b	
384678	Patrons Way West, Denham Garden Village	CS3021	48.8	40.2	48.2	62.1	49.2	48.0	39.8	2,A,iii,b	
384701	Patrons Way East, Denham Garden Village	CS3021	48.8	40.2	48.2	62.1	49.2	48.0	39.8	2,A,iii,b	
384843	Patrons Way East, Denham Garden Village	CS3024	48.6	41.9	58.9	72.8	48.6	46.8	41.9	3,D,ii,b	
384928	Patrons Way East, Denham Garden Village	CS3024	54.7	48.5	58.9	72.8	54.6	53.4	47.6	3,A,ii,b	
384986	Patrons Way East, Denham Garden Village	CS3024	49.6	43.4	58.9	72.8	49.5	48.3	42.5	3,C,ii,b	
385086	Tilehouse Lane, Denham	LM5112	54.2	47.7	58.5	74.3	49.8	52.2	41.6	3,A,i,a	
385188	Chairmans Walk, Denham Garden Village	CS3024	51.6	45.4	58.9	72.8	51.5	50.3	44.5	3,C,ii,b	
385470	Patrons Way West, Denham Garden Village	CS3021	48.8	40.2	48.2	62.1	49.2	48.0	39.8	2,A,iii,b	
385531	Patrons Way West, Denham Garden Village	CS3021	48.8	40.2	48.2	62.1	49.2	48.0	39.8	2,A,iii,b	
385939	Marish Lane, Denham	LM5112	49.5	43.0	58.5	74.3	49.8	52.2	41.6	1,C,iii,b	
387494	Green Tiles Lane, Denham	LM5110	53.6	47.4	60.7	74.7	54.0	52.8	47.0	3,A,i,a	

Assessment location ID	Area represented	Measurement location	Existing baseline sound level (dB)							Data source coding[1]	
			For operational sound assessment				For construction sound assessment				
			Daytime $L_{pAeq,16hr}$	Night-time $L_{pAeq,8hr}$	Arithmetic average of night-time $L_{pAFmax,5min}$	Highest night-time $L_{pAFmax,5min}$	Daytime L_{pAeq}	Evening/weekend L_{pAeq}	Night-time L_{pAeq}		
387745	Denham Green Lane, Denham	LM5109	52.7	46.1	58.8	74.3	53.0	49.6	45.1	3,A,iii,b	
387787	Penn Drive, Denham	LM5110	53.6	47.4	60.7	74.7	54.0	52.8	47.0	3,A,iii,b	
388230	Nightingale Way, Denham	LM5110	53.6	47.4	60.7	74.7	54.0	52.8	47.0	3,A,iii,b	
388449	Tilehouse Lane, Denham	LM5110	53.6	47.4	60.7	74.7	54.0	52.8	47.0	3,A,iii,b	
388708	Woodhurst Drive, Denham	CS3021	48.8	40.2	48.2	62.1	49.2	48.0	39.8	2,A,ii,b	
388957	Woodhurst Drive, Denham	CS3021	48.8	40.2	48.2	62.1	49.2	48.0	39.8	2,A,ii,b	
389096	North Orbital Road, Denham	LM5111	64.5	57.5	60.5	79.0	64.8	64.2	57.1	3,A,ii,b	
389194	Tilehouse Lane, Denham	CS0014	50.7	44.2	50.4	66.2	51.5	53.9	43.3	1,A,ii,b	
389222	Tilehouse Lane, Denham	LM5112	54.2	47.7	58.5	74.3	49.8	52.2	41.6	3,A,ii,b	
389294	Tilehouse Lane, Denham	LM5112	49.5	43.0	58.5	74.3	49.8	52.2	41.6	1,C,iii,b	
389414	Halings Lane, Denham	LM5112	49.5	43.0	58.5	74.3	49.8	52.2	41.6	1,C,iii,b	
389429	Tilehouse Lane, Denham	CS0014	50.7	44.2	50.4	66.2	51.5	53.9	43.3	1,A,i,a	
390171	Moorfield Road, Denham	CS1301	44.3	39.7	44.7	67.2	44.4	43.7	39.4	1,A,ii,b	
390213	Savay Close, Denham	CS5108	45.3	38.7	48.0	63.6	45.6	42.2	37.7	1,A,ii,b	
390764	Savay Lane, Denham	CS5108	45.3	38.7	48.0	63.6	45.6	42.2	37.7	1,A,i,a	
390840	North Orbital Road, Uxbridge	CS3024	56.8	50.6	58.9	72.8	56.7	55.5	49.7	3,C,ii,b	
391014	Link Way, Denham	LM5109	52.7	46.1	58.8	74.3	53.0	49.6	45.1	3,A,i,a	

Assessment location ID	Area represented	Measurement location	Existing baseline sound level (dB)							Data source coding[1]	
			For operational sound assessment				For construction sound assessment				
			Daytime $L_{pAeq,16hr}$	Night-time $L_{pAeq,8hr}$	Arithmetic average of night-time $L_{pAFmax,5min}$	Highest night-time $L_{pAFmax,5min}$	Daytime L_{pAeq}	Evening/weekend L_{pAeq}	Night-time L_{pAeq}		
391133	Savay Lane, Denham	LM5108	52.5	45.9	60.6	76.1	53.7	50.3	45.8	3,A,i,a	
391149	Denham Green Lane, Denham	CS3024	49.7	43.4	58.9	72.8	49.6	48.4	42.6	3,C,ii,b	
391211	Moorfield Road, Denham	LM5109	52.7	46.1	58.8	74.3	53.0	49.6	45.1	3,A,iii,b	
391326	Savay Lane, Denham	CS5108	45.3	38.7	48.0	63.6	45.6	42.2	37.7	1,A,ii,b	
391389	Sheepcote Gardens, Denham	CS3024	54.7	48.5	58.9	72.8	54.6	53.4	47.6	3,A,ii,b	
391428	North Orbital Road, Denham	CS3017	45.9	39.2	66.9	80.9	45.9	39.8	39.2	1,D,ii,b	
391453	North Orbital Road, Denham	CS3017	45.9	39.2	66.9	80.9	45.9	40.1	39.2	1,D,ii,b	
391595	Moorhall Road, Harefield	LM5107	50.4	46.0	70.2	92.5	51.0	50.7	46.1	3,BC,ii,b	
391607	Moorhall Road, Harefield	LM5107	55.3	50.9	70.2	92.5	55.9	55.6	51.0	3,BC,ii,b	
392100	Peerless Drive, Harefield	CS3019	49.3	42.6	45.1	67.4	49.3	49.8	42.7	3,A,ii,b	
392473	Broadwater Lane, Harefield	CS3020	52.0	51.2	58.4	80.7	52.0	52.6	50.4	3,A,ii,b	
395266	Chalfont Lane, West Hyde	CS0017	54.8	47.1	56.7	67.6	55.3	54.3	47.2	1,A,iii,b	
395380	The Hawthorns, Maple Cross	CS1304	50.0	47.6	54.3	72.0	50.0	50.3	47.5	1,A,ii,b	
395447	Birch Drive, Maple Cross	CS1304	50.0	47.6	54.3	72.0	50.0	50.3	47.5	1,A,ii,b	
396118	Longcroft Road, Maple Cross	CS1304	50.0	47.6	54.3	72.0	50.0	50.3	47.5	1,A,ii,b	
396203	Buttlehide, Maple Cross	LM5113	61.4	53.7	57.5	68.5	61.9	60.9	53.8	3,A,i,a	
396888	Old Uxbridge Road, West Hyde	CS0088	54.3	47.3	55.5	74.0	55.1	54.5	47.4	1,A,i,a	

Assessment location ID	Area represented	Measurement location	Existing baseline sound level (dB)							Data source coding[1]	
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			Daytime $L_{pAeq,16hr}$	Night-time $L_{pAeq,8hr}$	Arithmetic average of night-time $L_{pAFmax,5min}$	Highest night-time $L_{pAFmax,5min}$	Daytime L_{pAeq}	Evening/weekend L_{pAeq}	Night-time L_{pAeq}		
396910	Old Uxbridge Road, Maple Cross & Mill End	CS0017	54.8	47.1	56.7	67.6	55.3	54.3	47.2	1,A,ii,b	
396945	Old Uxbridge Road, West Hyde	CS0088	54.3	47.3	55.5	74.0	55.1	54.5	47.4	1,A,ii,b	
396991	Old Uxbridge Road, Rickmansworth	CS0017	54.8	47.1	56.7	67.6	55.3	54.3	47.2	1,A,ii,b	
397097	Old Uxbridge Road, West Hyde	CS0017	53.3	45.6	56.7	67.6	53.8	52.8	45.7	1,C,ii,b	
397281	Old Uxbridge Road, Rickmansworth	CS0017	50.9	43.2	56.7	67.6	51.4	50.4	43.3	1,C,ii,b	
397354	Old Uxbridge Road, West Hyde	CS3003	60.5	52.8	68.3	79.3	61.0	60.0	52.9	3,A,ii,b	
397534	Old Uxbridge Road, Maple Cross & Mill End	CS3003	60.5	52.8	68.3	79.3	61.0	60.0	52.9	3,A,ii,b	
399250	Park Lane, Harefield	CS3020	52.0	51.2	58.4	80.7	52.0	52.6	50.4	3,A,iii,b	
399680	Unnamed Road, Maple Cross & Mill End	CS3020	52.0	51.2	58.4	80.7	52.0	52.6	50.4	3,A,iii,b	
399824	Jacks Lane, Harefield	CS3020	52.0	51.2	58.4	80.7	52.0	52.6	50.4	3,A,iii,b	
401741	Harvil Road, Harefield	LM5101	51.4	47.3	53.0	72.0	52.6	48.6	48.1	3,A,ii,b	
401764	Harvil Road, Harefield	LM5101	51.4	47.3	53.0	72.0	52.6	48.6	48.1	3,A,ii,b	
402028	Hillside, Harefield	LM7028	48.3	43.9	47.7	69.9	48.9	48.6	44.0	1,A,i,a	
402270	The Furrows, Harefield	LM0044	51.3	37.7	46.5	57.7	50.6	52.2	37.7	1,A,i,a	
402669	Moorhall Road, Harefield	CS3018	55.9	51.0	55.6	69.1	56.6	53.8	51.0	1,A,ii,b	
402948	Truesdale Drive, Harefield	LM7028	48.3	43.9	47.7	69.9	48.9	48.6	44.0	1,A,ii,b	
403127	Broadwater Gardens, Harefield	CS3020	52.0	51.2	58.4	80.7	52.0	52.6	50.4	3,A,ii,b	

Assessment location ID	Area represented	Measurement location	Existing baseline sound level (dB)							Data source coding[1]	
			For operational sound assessment				For construction sound assessment				
			Daytime $L_{pAeq,16hr}$	Night-time $L_{pAeq,8hr}$	Arithmetic average of night-time $L_{pAFmax,5min}$	Highest night-time $L_{pAFmax,5min}$	Daytime L_{pAeq}	Evening/weekend L_{pAeq}	Night-time L_{pAeq}		
406098	Harvil Road, Ickenham	LM1070	58.8	50.8	60.2	71.2	59.4	58.1	51.2	1,A,i,a	
406180	The Drive, Ickenham	LM1070	51.1	43.1	60.2	71.2	51.7	50.4	43.5	1,C,ii,b	
407707	The Drive, Ickenham	LM1070	58.0	50.0	60.2	71.2	58.6	57.3	50.4	1,C,ii,b	
408975	Harvil Road, Harefield	CS1100	60.5	52.8	62.6	73.8	60.7	58.6	52.8	1,A,ii,b	
700365	Chalfont Lane, West Hyde	CS0017	54.8	47.1	56.7	67.6	55.3	54.3	47.2	1,A,iii,b	
700366	Old Uxbridge Road, Rickmansworth	CS0017	54.8	47.1	56.7	67.6	55.3	54.3	47.2	1,A,ii,b	
700367	Old Uxbridge Road, Rickmansworth	CS0017	54.8	47.1	56.7	67.6	55.3	54.3	47.2	1,A,ii,b	
700368	Tilehouse Lane, Denham	CS0014	50.7	44.2	50.4	66.2	51.5	53.9	43.3	1,A,ii,b	
700370	North Orbital Road, Denham	LM5111	64.5	57.5	60.5	79.0	64.8	64.2	57.1	3,A,i,a	
700371	North Orbital Road, Denham	LM5112	54.2	47.7	58.5	74.3	49.8	52.2	41.6	3,A,ii,b	
700372	Tilehouse Lane, Denham	LM5112	54.2	47.7	58.5	74.3	49.8	52.2	41.6	3,A,i,a	
700373	Moorfield Road, Denham	LM5107	58.1	53.7	70.2	92.5	58.7	58.4	53.8	3,BC,ii,b	
700374	Moorhall Road, Harefield	LM5107	57.1	52.7	70.2	92.5	57.7	57.4	52.8	3,BC,ii,b	
700375	Moorhall Road, Harefield	CS5108	45.3	38.7	48.0	63.6	45.6	42.2	37.7	1,A,ii,b	
700381	Harvil Road, Ickenham	LM1070	58.8	50.8	60.2	71.2	59.4	58.1	51.2	1,A,ii,b	
700382	Old Uxbridge Road, West Hyde	CS0088	54.3	47.3	55.5	74.0	55.1	54.5	47.4	1,A,ii,b	
701092	Hillside, Harefield	LM7028	48.3	43.9	47.7	69.9	48.9	48.6	44.0	1,A,i,a	

Assessment location ID	Area represented	Measurement location	Existing baseline sound level (dB)							Data source coding[1]	
			For operational sound assessment				For construction sound assessment				
			Daytime $L_{pAeq,16hr}$	Night-time $L_{pAeq,8hr}$	Arithmetic average of night-time $L_{pAFmax,5min}$	Highest night-time $L_{pAFmax,5min}$	Daytime L_{pAeq}	Evening/weekend L_{pAeq}	Night-time L_{pAeq}		
701093	Hillside, Harefield	LM7028	48.3	43.9	47.7	69.9	48.9	48.6	44.0	1,A,i,a	
701094	Dellside, Harefield	LM7028	48.3	43.9	47.7	69.9	48.9	48.6	44.0	1,A,i,a	
701095	Peerless Drive, Harefield	CS3019	49.3	42.6	45.1	67.4	49.3	49.8	42.7	3,A,i,a	
701096	Priory Close, Harefield	CS3019	49.3	42.6	45.1	67.4	49.3	49.8	42.7	3,A,i,a	
701097	St. Marys Close, Harefield	CS3020	52.0	51.2	58.4	80.7	52.0	52.6	50.4	3,A,i,a	
701098	St. Marys Road, Harefield	CS3020	52.0	51.2	58.4	80.7	52.0	52.6	50.4	3,A,i,a	
709511	Denham Way, Maple Cross	CS3003	60.5	52.8	68.3	79.3	61.0	60.0	52.9	3,A,ii,b	
709521	Jetties, Harefield	CS5108	45.3	38.7	48.0	63.6	45.6	42.2	37.7	1,A,ii,b	
711000	Horse & Barge visitor moorings	CS3018	54.4	49.5	55.6	69.1	55.1	52.3	49.5	1,C,ii,b	
711001	Hillingdon Outdoor Activities Centre	LM5101	51.4	47.3	53.0	72.0	52.6	48.6	48.1	3,A,iii,b	
711012	Grand Union Canal Moorings 2	LM7028	48.3	43.9	47.7	69.9	48.9	48.6	44.0	1,A,ii,b	
711019	Hillingdon Outdoor Activities Centre 2	LM5101	51.4	47.3	53.0	72.0	52.6	48.6	48.1	3,A,iii,b	
711048	Peerless Drive, Harefield	CS3019	49.3	42.6	45.1	67.4	49.3	49.8	42.7	3,A,ii,b	
711049	Peerless Drive, Harefield	CS3019	49.3	42.6	45.1	67.4	49.3	49.8	42.7	3,A,ii,b	
711050	Peerless Drive, Harefield	CS3019	49.3	42.6	45.1	67.4	49.3	49.8	42.7	3,A,ii,b	
720300	Denham Waterski Club	LM5111	64.5	57.5	60.5	79.0	64.8	64.2	57.1	3,A,ii,b	

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Table 2: Data source coding key

Code	Data source type
1	Long-term measurement location
2	Short-term (linked to simultaneous long-term)
3	Short-term (using profile from non-simultaneous long-term)
4	Short-term using standard (National Noise Incidence Study ³ or other) 24hr profile
5	Specific validated prediction
6	Predictions from other sources (Department of Environment, Food and Rural Affairs (Defra) noise maps ⁴ , etc.)
7	Generic levels

Code	Corrections applied
A	Data from above source applied directly
B	Correction applied for screening
C	Correction applied for distance from source
D	Minimum level cut-off applied

Code	Distance from measurement
i	Data applied from a measurement at or very close to the assessment location.
ii	Data applied from a local measurement location at a greater distance but noted to have equivalent acoustic climate.
iii	Data applied from a distant measurement location where sound levels would be expected to be similar.

Code	Uncertainty
a	Data are considered highly representative of the prevailing sound climate.
b	Data are considered representative of the prevailing sound climate, but variations in measured levels indicate that there may be a higher degree of uncertainty than for (a).
c	Data are considered to be an estimate of the sound climate, (e.g. taken from Defra noise maps, etc.).

³ Building Research Establishment (2002), *National Noise Incidence Study*, 2000/2001.

⁴ Defra; Noise Mapping England; <http://services.defra.gov.uk/wps/portal/noise/>; Accessed: 26 July 2013.

3.3 Future baseline methodology

Construction

- 3.3.1 The assessment of noise from construction activities assumes a baseline year of 2017. As a conservative assumption, it has been assumed that no change in baseline sound levels will occur between the existing baseline (2012/13) and the future baseline year of 2017.
- 3.3.2 Due to the duration of the construction work and as the precise timing of the highest sound levels would be different in each location, using baseline sound levels for 2017 as the start of the construction period, provides a reasonable worst case assessment.
- 3.3.3 The assessment of construction traffic is based on future baseline traffic flows for 2021, as a year representative of the middle of the construction period.

Operation

- 3.3.4 There is potential for future baseline sound levels for operation (2026) to change when compared to the existing baseline sound levels (2012) as a result of changes in baseline sound sources.
- 3.3.5 In the vast majority of cases where change might occur it is expected that baseline sound levels will increase at assessment locations due to increases in vehicle movements on roads. It is therefore considered that the use of the 2012 baseline levels in the operational assessment will result in a reasonable worst case assessment of the impact of changes in the future baseline sound levels in the majority of locations. Therefore for the purposes of this assessment future baseline levels have been assumed to be identical to those identified in Table 1 for 2012.
- 3.3.6 In addition, based on available road traffic information a screening exercise has been undertaken to identify any areas in which a change in baseline sound level might be likely. No reductions in baseline sound level have been identified; however, an increase in baseline noise levels has been predicted at the locations shown in Table 3 due to increased future traffic flows.

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Table 3: Future baseline noise levels

Assessment Location	Road	Predicted increase in Basic Noise Level
391326	Savay Lane, Denham	+0.7 dB
390764		
389429	A412 Denham Way / North Orbital Road	+0.7 dB
700368		
384374		
389194		
700371		
384372	Tilehouse Lane	+0.7 dB
389222		
700372		
385086		
383893		
391595	Moorhall Road	+0.7 dB
391607		
700374		
700375		
402669		
402028	Hillside, Harefield	+0.7 dB
701092		
701093		
402270	The Furrows, Harefield	+0.7 dB
701094	Dellside, Harefield	+0.7 dB
701095	Peerless Drive	+0.7 dB
709521	Harefield Marina Moorings	+0.7 dB
711000	Horse and Barge visitor moorings	+0.7 dB
711012	Grand Union Canal moorings	+0.7 dB

4 References

Building Research Establishment (2002), *National Noise Incidence Study, 2000/2001*.

Defra; Noise Mapping England; <http://services.defra.gov.uk/wps/portal/noise/>; Accessed: 26 July 2013.